



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/595,769	06/16/2000	Kenton A. Buss	67264	1181

22206 7590 02/05/2003

FELLERS SNIDER BLANKENSHIP
BAILEY & TIPPENS
THE KENNEDY BUILDING
321 SOUTH BOSTON SUITE 800
TULSA, OK 74103-3318

EXAMINER

LEE, EDMUND H

ART UNIT	PAPER NUMBER
----------	--------------

1732

DATE MAILED: 02/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/595,769

Applicant(s)

BUSS, KENTON A.

Examiner

EDMUND H LEE

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claims introduce new matter into the disclosure. The added material that is not supported by the original disclosure is as follows:

a) the phrase "such that said plastic material is substantially weakened along said ridge" (cl 14, lns 12-13) lack support in the instant specification. The phrase lacks support because its breadth is not supported. There is support for forming a groove having a bottom that is thinner than the original sheet of material. See pg 8, lns 9-15 of the instant specification.

2. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for forming a groove having a bottom that is thinner than the original sheet of material (pg 8, lns 10-15 of instant specification), does not reasonably provide enablement for forming a ridge such that the plastic material is substantially weakened along the ridge. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. The phrase "such that said plastic material is substantially weakened along said ridge" (cl 14, lns 12-13) includes means beyond thinning to facilitate trimming. The phrase is too broad.

Art Unit: 1732

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yon (USPN 3337664) in view of Irwin et al (USPN 5773540). Yon teaches the basic claimed process including a method of making a molded article wherein the article has a substantially vertical wall portion and a traverse outer edge portion (figs 9)--as a note, the portion of the plastic material underneath the bulbous portion of the knob constitutes the substantially vertical wall portion; heating a sheet of plastic material having a mold side and an exposed side to a first temperature, wherein the first temperature is consistent with forming the sheet of plastic material in a thermoforming process (col 2, lns 45-55; figs 4-9); placing the mold side of the sheet over the mold, wherein the mold has a first surface form forming the substantially vertical peripheral wall portion and further having a second surface substantially perpendicular to the first surface for forming the edge portion (figs 4-9); applying a vacuum to the mold (col 3, lns 55-60; figs 4-9); forming a ridge along at least a part of the outer edge portion, the ridge being of a substantially uniform height (figs 4-9); cooling the sheet of plastic to a second temperature wherein the second temperature is consistent with the plastic material retaining its molded shape (figs 4-9)--as a note, such is inherent in order to prevent deformation of the molded article; releasing the vacuum from the mold (figs 4-9); cutting

Art Unit: 1732

the molded article along the ridge to release it from the sheet (figs 4-9); and removing the sheet from the mold (figs 4-9); forming a ridge about the entirety of the outer edge portion at a substantially coequal distance from the wall portion (figs 4-9); and providing a channel edge of a substantially uniform width about the periphery of the article (figs 4-9). However, Yon does not teach cutting the sheet after removing the sheet from the mold; and using a steel rule to form the ridge. Irwin et al teach thermoforming a plastic article (figs 3-4); and forming a ridge about a substantially vertical peripheral wall portion of the molded article (figs 3-4). Irwin et al also teaches using the ridge to form an air tight seal of web material about the cavity (col 6, lns 15-30; figs 3-4); and, additionally or alternatively, severing the web material at the ridge while the mold is closed. Thus, Irwin et al teach maintaining the integrity of the web material while in the shaping mold and cutting the article from the web material upon removal from the shaping mold; and severing the molded article from the web material while in the shaping mold. Yon and Irwin et al are combinable because they are analogous with respect to thermoforming plastic articles having a ridge about a substantially vertical peripheral wall portion. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to sever the molded article of Yon from web material after its removal from the mold of Yon as taught by Irwin et al in order to ensure an air tight seal in the mold cavity of Yon. In regard to the steel rule, Yon teaches using a metal mold to form the ridge (figs 4-9)--as a note, the use of metal mold is evident by the hatchings in the figures. Steel molds are notoriously well-known in the molding art for their durability. Thus, it would have been obvious to one of ordinary skill in the art at the time the

Art Unit: 1732

invention was made to make the mold of Yon from steel including the portion of the mold forming the ridge in order to have a durable mold.

5. Claim 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yon (USPN 3337664) in view of Irwin et al (USPN 5773540). Yon teaches the basic claimed process including a method of making a molded article wherein the article has an outer edge portion (figs 9); molding an article having an outer edge portion from plastic material in a mold, the outer edge portion having a ridge along at least a part of the outer edge portion wherein the ridge is of substantially uniform height (figs 4-9); cutting the article along the ridge such that the ridge defines the outer edge of the article (fig 4-9); molding the ridge about the entirety of the outer ridge portion (figs 4-9); and removing the article from the mold (figs 4-9). However, Yon does not teach cutting the sheet after removing the sheet from the mold; and using a steel rule to form the ridge. Irwin et al teach thermoforming a plastic article (figs 3-4); and forming a ridge about a substantially vertical peripheral wall portion of the molded article (figs 3-4). Irwin et al also teaches using the ridge to form an air tight seal of web material about the cavity (col 6, lns 15-30; figs 3-4); and, additionally or alternatively, severing the web material at the ridge while the mold is closed. Thus, Irwin et al teach maintaining the integrity of the web material while in the shaping mold and cutting the article from the web material upon removal from the shaping mold; and severing the molded article from the web material while in the shaping mold. Yon and Irwin et al are combinable because they are analogous with respect to thermoforming plastic articles having a ridge about a substantially vertical peripheral wall portion. Thus, it would have been obvious to one of

Art Unit: 1732

ordinary skill in the art at the time the invention was made to sever the molded article of Yon from web material after its removal from the mold of Yon as taught by Irwin et al in order to ensure an air tight seal in the mold cavity of Yon. In regard to the steel rule, Yon teaches using a metal mold to form the ridge (figs 4-9)--as a note, the use of metal mold is evident by the hatchings in the figures. Steel molds are notoriously well-known in the molding art for their durability. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the mold of Yon from steel including the portion of the mold forming the ridge in order to have a durable mold.

6. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yon (USPN 3337664) in view of Valyi (USPN 3954923). Yon teaches the basic claimed process including a method of making a molded article wherein the article has a substantially vertical wall portion and a traverse outer edge portion (figs 9)--as a note, the portion of the plastic material underneath the bulbous portion of the knob constitutes the substantially vertical wall portion; heating a sheet of plastic material having a mold side and an exposed side to a first temperature, wherein the first temperature is consistent with forming the sheet of plastic material in a thermoforming process (col 2, lns 45-55; figs 4-9); placing the mold side of the sheet over the mold, wherein the mold has a first surface form forming the substantially vertical peripheral wall portion and further having a second surface substantially perpendicular to the first surface for forming the edge portion (figs 4-9); applying a vacuum to the mold (col 3, lns 55-60; figs 4-9); forming a ridge along at least a part of the outer edge portion, the ridge being of a substantially uniform height (figs 4-9); cooling the sheet of plastic to a second

Art Unit: 1732

temperature wherein the second temperature is consistent with the plastic material retaining its molded shape (figs 4-9)--as a note, such is inherent in order to prevent deformation of the molded article; releasing the vacuum from the mold (figs 4-9); trimming the molded article along the ridge to release it from the sheet (figs 4-9); and removing the sheet from the mold (figs 4-9); forming a ridge about the entirety of the outer edge portion at a substantially coequal distance from the wall portion (figs 4-9); and providing a channel edge of a substantially uniform width about the periphery of the article (figs 4-9). However, Yon does not teach forming the ridge such that the plastic material is substantially weakened along the ridge; trimming the sheet after removing the sheet from the mold; and using a steel rule to form the ridge. Valyi teaches thermoforming a plastic article (figs 1-2); using a trimming tool to trim the article out of the web or partly trim or score the article (col 4, Ins 38-45; figs 1-2); and trimming out the article outside of the mold (figs 1-2). Valyi also teaches using the web with a partly trimmed out article or scored article as a carrier for transferring the article to another working station (col 4, Ins 38-45; figs 1-2). Yon and Valyi are combinable because they are analogous with respect to thermoforming plastic articles and trimming the articles from a web of material. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to score the molded article of Yon along the ridge as taught by Valyi instead of trimming out the article in order to facilitate transferring the molded article. Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to trim out the molded article of Yon after its removal from the mold as taught by Valyi in order to increase production

Art Unit: 1732

of the molded article by freeing up the shaping mold. In regard to the steel rule, Yon teaches using a metal mold to form the ridge (figs 4-9)--as a note, the use of metal mold is evident by the hatchings in the figures. Steel molds are notoriously well-known in the molding art for their durability. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the mold of Yon from steel including the portion of the mold forming the ridge in order to have a durable mold.

7. Applicant's arguments filed 11/19/02 have been fully considered but they are not persuasive. Applicant argues that claims 1, 2, 4, and 11-13 overcome Yon because Yon does not teach cutting/trimming the sheet after its removal from the mold. The above new grounds of rejection of claims 1, 2, 4, and 11-13 address this new limitation. Applicant also argues that the use of a separate steel rule to form a peripheral ridge is not known. This argument is misplaced because the instant claim inventions use a mold having a steel rule. Furthermore, the instant specification and original claims do not mention a steel rule that is not a part of the mold. Also, a portion of the ridge that is formed by the rule is a portion of the final article of the instant invention. See figs 3 and 5-6 of the instant disclosure.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1732

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Both Thiel (USPN 3161915) and Thiel et al (USPN 4086045) teach thermoforming a plastic article and trimming the article from the web of material after its removal from the shaping mold.

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Examiner Edmund Lee whose telephone number is (703) 305-4019. The examiner can normally be reached on Monday-Wednesday and Friday from 8:00 AM to 4:00 PM. The fax number for Examiner Edmund Lee is (703) 872-9615


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jan H. Silbaugh, can be reached on (703) 308-3829.

Art Unit: 1732

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

EHL

January 27, 2003



Edmund Lee 1/27/03

Patent Examiner, AU 1732